LF Edge TAC
Technical Advisory Council

10 February 2021

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Meeting Details

› February 10, 2021 (@ 7:00am PST)
› Meeting Info:
  › Meeting URL: https://zoom.us/j/94796108342?pwd=VjlaMTBxcXFQQ3pVcU85NTJvWkxaZz09
  › Calendar Subscription: https://lists.lfedge.org/g/TAC/calendar

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Project/Member	Representative	Named Alternate	Project/Member	Representative	Named Alternate
Altran	Shamik Mishra	Nilanjan Samajdar	**HP Inc.**	Henry Lau	
Arm	Reed Hinkel	Tina Tsou	**Huawei**	JianGuo Zeng	Gabriel Yuyang
AT&T	Kaustubh Joshi (KJ)		**IBM**	Joseph Pearson	Ryan Anderson
Baidu	Leding Li		**Intel**	Jim St. Leger (TAC Chair)	Sharad Mishra
Charter	Jeffrey Saelens	Mohammad Zebetian	**Nokia**	Tapio Tallgren	
Dell	David Lake	Trevor Conn	**NTT**	Takeshi Kuwahara	
Dianomic	Mark Riddoch	Tom Arthur	**OSIsoft**	Daniel Lazaro	
Equinix	Justin Dustzadeh		**Radisys**	Adnan Saleem	Prakash Siva
Ericsson	Torbjörn Keisu	Andrew Wilkinson	**Red Hat**	Anil Vishnoi	Thomas Nadeau
Fujitsu	Toshimichi Fukuda	Hatsumi Iino	**Samsung**	MyeongGi Jeong	Chi-Hyun Cho
Futurewei	Chaker Al-Hakim	Deepak Vij	**Tencent**	Yachen Wang	Wei Chen

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Project/ Member	Representative	Named Alternate	Project/ Member	Representative	Named Alternate
Western Digital	Jorge Campello De Souza		**Akraino**	Tina Tsou	Oleg Berzin
Wipro	Subhas Mondal		**EdgeX Foundry**	Henry Lau	
ZEDEDA	Erik Nordmark	Roman Shaposhnik			

Topics

1. Proposed Project Advancement - Subgroup Readout: Open Horizon
2. TAC Community Lab Subcommittee [10 minutes]
3. LF Edge Taxonomy - Project Placement [10 minutes]
4. Project Resources - Best Practices [10 minutes]
5. Upcoming Events / Next Meeting

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Proposed Project Advancement - Subgroup Readout: Open Horizon

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Open Horizon: Stage 2 Proposal

› Proposal: https://wiki.lfedge.org/pages/viewpage.action?pageId=34341347
› Timeline/Next Steps (Process):
  › Thursday, January 21, 2020: Proposal emailed to TAC
  › Wednesday, January 27: TAC Presentation (Meeting Recording, Slides)
  › --2 Week Review Period (ending Wednesday, February 10)
  › Wednesday, February 3: TAC Subgroup Review - Notes / Recording
  › **Today** - TAC Subgroup Readout / Vote initiated over email (if motion/second are raised)
    › Acceptance criteria for Stage 2: Receive a two-thirds vote of all TAC representatives that do not abstain the vote and a majority vote of the Governing Board to move to Growth Stage.

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Recommendation to Approve Open Horizon at Stage 2

The TAC Project Review Subgroup for Open Horizon recently met (February 3, 2021) to review the request of the Open Horizon project to advance to Stage 2, Growth, within LF Edge.

As a matter of formality, the subgroup believes that the project meets the expectations of the TAC for Stage 2 projects as set forth in Project Lifecycle Document. Therefore, the subgroup recommends that the decision for advancing to Stage 2 should be approved per guidelines on the next page. Considerations for this decision included:

Positives
› Active open source developer activity and engagement. Significant support within IBM (primary contributor) for ongoing participation and innovation
› Increasing partner adoption with real world use cases (DLR Germany, Foxconn int'l, Port of Barcelona, etc.)
› Active engagement and collaboration with other LF Edge projects (EdgeX Foundry, EVE, HomeEdge, Fledge)

Areas of Concern
› While developer community is active and engaged, it needs to grow both in terms of people and contributing companies. Velocity on issue triage and PR mgmt needs to increase
› Work on generating interest from POC partners to participate in and/or sponsor Special Interest Groups for real-world use cases and dev resources
› How does Open Horizon extend its capabilities and reach while staying focused on its core competency? In staying focused, how to define the right interfaces/abstractions for industry collaboration?

Open Horizon: Stage 2 Proposal - TAC Subgroup Readout (2 of 2)

On behalf of the of the Open Horizon subgroup, we recommend the TAC vote to *APPROVE* the decision to advance Open Horizon to a Stage 2 LF Edge Project.

Additional lessons learned/discussion opened for future consideration (not specific to OH)
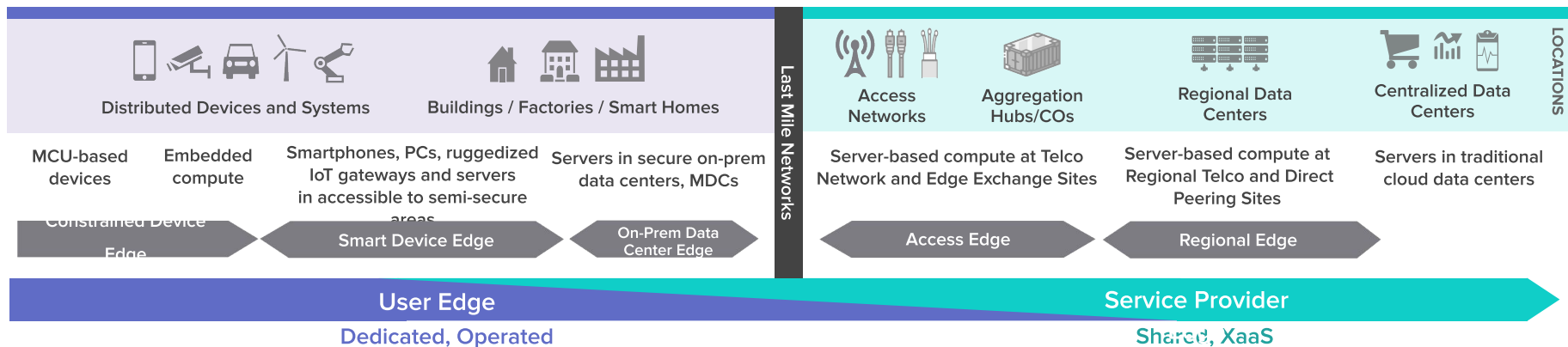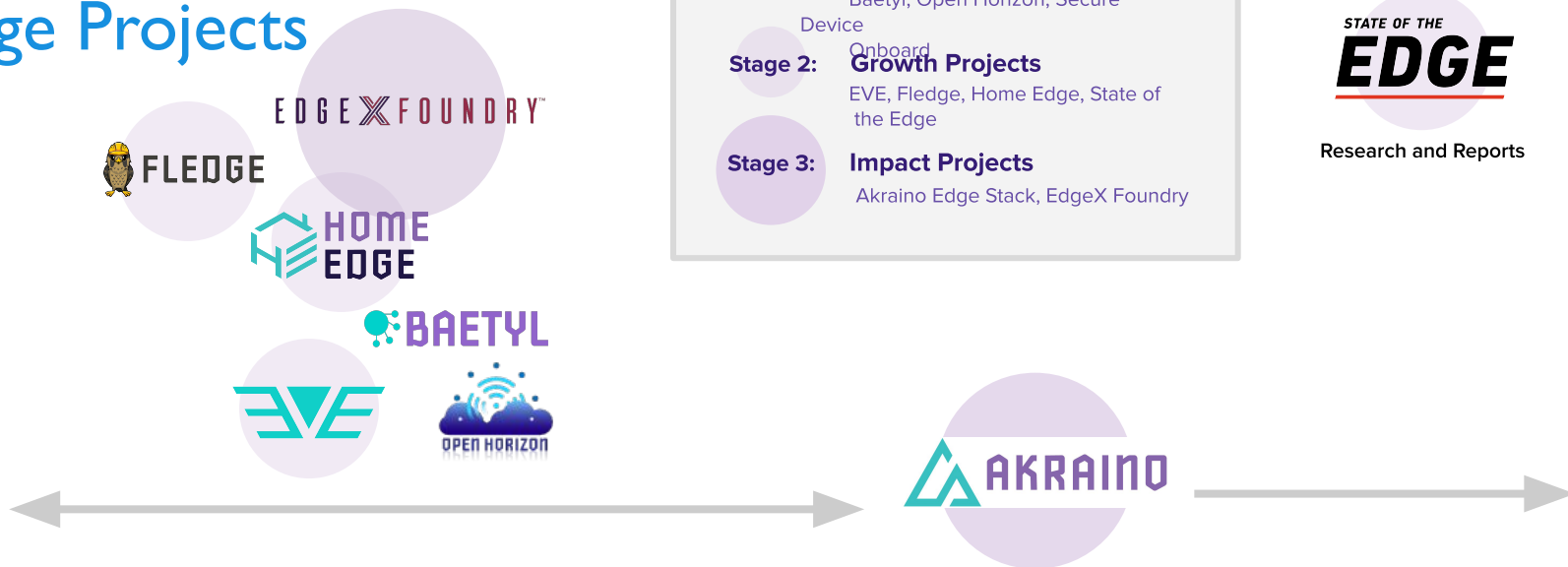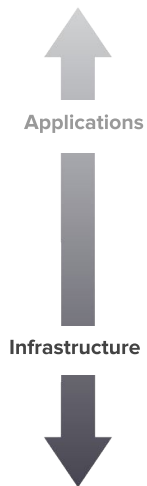
TAC Community Lab Subcommittee
Jim St. Leger

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TAC Community Lab Subcommittee

› Subgroup last met on February 3 ([notes](#))

› Nominations opened for Community Lab Subcommittee Chair position
  › Nominations close February 17 at 12pm Pacific Time

› Next up: LF Edge Wiki documentation build/transfer + mail list launch
  › Subcommittee Wiki:
    https://wiki.lfedge.org/display/LE/TAC+Community+Lab+Subcommittee

› Next Subgroup meeting scheduled for Wednesday, February 17
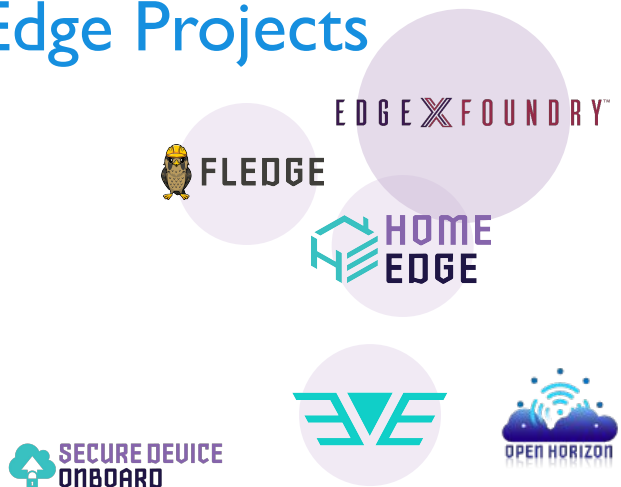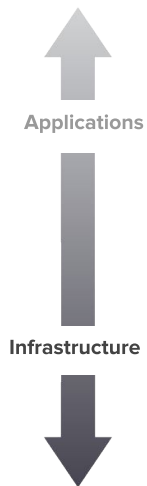 › Subscribe to mail list / calendar: https://lists.lfedge.org/g/tac-community-lab

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LF Edge Taxonomy - Project Placement

LF Edge Projects

EDGE X FOUNDRY™

FLEDGE

HOME EDGE

BAETYL

EVE

OPEN HORIZON

AKRAINO

Applications

Infrastructure

STATE OF THE EDGE

Research and Reports

					Last Mile Networks				LOCATIONS
Distributed Devices and Systems			Buildings / Factories / Smart Homes			Access Networks	Aggregation Hubs/COs	Regional Data Centers	Centralized Data Centers

MCU-based devices | Embedded compute | Smartphones, PCs, ruggedized IoT gateways and servers in accessible to semi-secure areas | Servers in secure on-prem data centers, MDCs | Server-based compute at Telco Network and Edge Exchange Sites | Server-based compute at Regional Telco and Direct Peering Sites | Servers in traditional cloud data centers

Constrained Device Edge

Smart Device Edge

On-Prem Data Center Edge

Access Edge

Regional Edge

User Edge
Dedicated, Operated

Service Provider
Shared, XaaS

proposed Baetyl move + placement of SDO

LF Edge Projects

EDGE X FOUNDRY™

FLEDGE

HOME EDGE

EVE

OPEN HORIZON

SECURE DEVICE ONBOARD

BAETYL

AKRAINO

Applications

Infrastructure

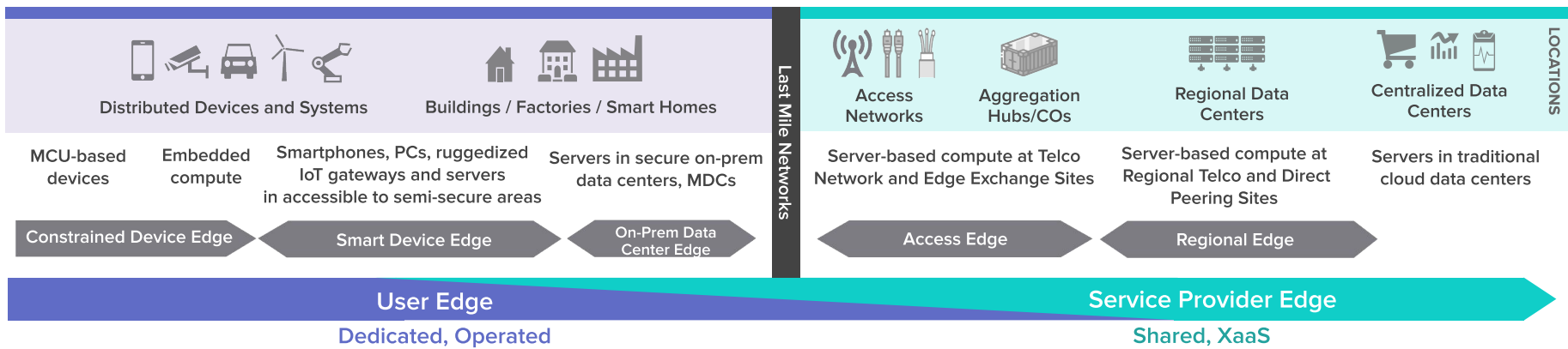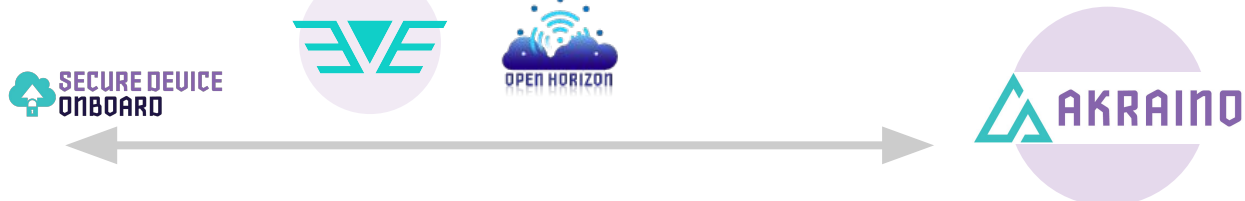**Stage 1:** **At Large Projects**
Baetyl, Open Horizon, Secure Device Onboard

Stage 2: **Growth Projects**
EVE, Fledge, Home Edge, State of the Edge

Stage 3: **Impact Projects**
Akraino Edge Stack, EdgeX Foundry

STATE OF THE EDGE

Research and Reports

Distributed Devices and Systems

Buildings / Factories / Smart Homes

Last Mile Networks

Access Networks

Aggregation Hubs/COs

Regional Data Centers

Centralized Data Centers

LOCATIONS

MCU-based devices

Embedded compute

Smartphones, PCs, ruggedized IoT gateways and servers in accessible to semi-secure areas

Servers in secure on-prem data centers, MDCs

Server-based compute at Telco Network and Edge Exchange Sites

Server-based compute at Regional Telco and Direct Peering Sites

Servers in traditional cloud data centers

Constrained Device Edge

Smart Device Edge

On-Prem Data Center Edge

Access Edge

Regional Edge

User Edge
Dedicated, Operated

Service Provider Edge
Shared, XaaS

Project Resources: Best Practices

Project Resources: Getting Started Checklist

1. https://wiki.lfedge.org/display/LE/Technical+Project+Getting+Started+Checklist
2. Best Practices Guide for new, and existing, LF Edge Projects to define/refine/enhance their Project Management
3. Will be sent to Project TSC Leads for additional input / examples
4. Welcome feedback in the TAC as well

New content added around best practices for Project Governance and Maintainers

GitHub Recommended Practices for LF Edge Projects
- Review and implement the GitHub Recommended Practices for LF Edge Projects (Links to LF AI – For LF Edge TAC Consideration on whether to adopt a similar set of recommendations)
  - Document the process by which contributors can become maintainers (and eventually be retired) - example
  - Have a MAINTAINERS.md (or rst) file in each repo documenting who the maintainers are - example
  - Adopt a common repository structure for all of its projects, leveraging the TODO repolinter tool to enforce it - example

Upcoming Events

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Upcoming External Events

Full list of LF events available at:
https://events.linuxfoundation.org/

Additional LF Edge events available at:
https://www.lfedge.org/events/

› [The Linux Foundation Spring Member Meeting](#): 9 March, 2021 - Virtual
› [Open Networking & Edge Executive Forum](#): 10-12 March, 2021 - Virtual
    › Complimentary registration for LF Edge members. Email [Brett](#) for the discount code.
› [Embedded IoT World](#): 28-29 April, 2021 - Virtual
› [Kubernetes on Edge Day](#): 4 May, 2021 - Virtual
    › [CFP](#) Deadline: **19 Feb, 2021**
› [Open Source Summit Europe](#): 28 Sept - 1 Oct, 2021 - Dublin, Ireland
    › [CFP](#) Deadline: 13 June, 2021
› [IoT Solutions World Congress](#): 5-7 October, 2021 - Barcelona, Spain
    › [CFP](#): Coming Soon
› [Open Networking & Edge Summit North America](#): 11-12 October, 2021 - Los Angeles, CA

› Discussions around upcoming events occur in the LF Edge Outreach Committee
› Members may subscribe at: https://lists.lfedge.org/g/outreach-committee

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LF Edge Webinar Series

› Akraino Edge Stack
  › Held Thursday, April 2 - [Your Path to Edge Computing with Akraino Edge Stack](#)
  › On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTOSIgH7pL8iHrQ
› EdgeX Foundry
  › Held Thursday, April 23 - [EdgeX Foundry 101: Intro, Roadmap and Use Cases](#)
  › On-demand recording available at: https://zoom.us/webinar/register/4515850788014/WN_xCd6YPjEOrCwLiFhBWPKug
› Project EVE
  › Held Friday, May 29 - [Building the "Android of the IoT Edge"](#)
  › On-demand recording available at: https://zoom.us/webinar/register/6415888722675/WN_35oZJ3hrOE69snMaiJUTPg
› White Paper
  › Held Thursday, July 9 - [Demystifying the Edge with the new LF Edge Taxonomy and Framework](#)
  › On-demand recording available at: https://zoom.us/webinar/register/WN_icv5h6wFTcuw9O0xvMpgLw
› Fledge
  › Held Thursday, August 13 - [How Google, OSIsoft, FLIR and Dianomic use Fledge to implement Industrial 4.0](#)
  › Recording available at: https://www.youtube.com/watch?v=6JXNv3AJWog
› State of the Edge
  › Held Thursday, September 17 - [State of the Edge: Exploring the Intersection of IoT, AI, 5G and Edge Computing](#)
  › On-demand recording available at: https://zoom.us/webinar/register/8115959695936/WN_4rt-MmP1Rl6Vkzn3ULpiAA
› Home Edge
  › Held Thursday, October 15 - [Home Edge: How Your Home Devices Get Deployed in An Edge Computing Services Ecosystem](#)
  › On-demand recording available at: https://zoom.us/webinar/register/WN_uSlgb-R5O4etkDhxoSXISQ
› Open Horizon
  › Held Thursday, November 19 - [Secure Application Management for Machine Learning & Constrained Devices](#)
  › On-demand recording available at: https://zoom.us/webinar/register/WN_tYli1JZ1RWq1pml8FuPRPw

› More to follow…

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LF Mentorship + LFX Webinar Series

› LF Live Mentorship Series: New Ideas for Smatch (Static Analysis)
  › February 11 (8:30am PST) - https://events.linuxfoundation.org/mentorship-session-smatch/
› LF Live Mentorship Series: Which Hat Do I Wear Today? The Balancing Act of Working with Upstream and Product Teams
  › February 17 (9:30am PST) - https://events.linuxfoundation.org/mentorship-session-which-hat-do-i-wear/
› LF Live Mentorship Series: Dynamic Program Analysis for Fun and Profit
  › February 25 (7:30am PST) - https://events.linuxfoundation.org/mentorship-session-dynamic-program-analysis/
› LF Live Mentorship Series: Fuzzing Linux Kernel
  › March 2 (7:30am PST) - https://events.linuxfoundation.org/mentorship-session-fuzzing-linux-kernel/

› Join the LF Live: Mentorship Series mailing list and be alerted when new sessions are added!
  › Sign up available at the bottom of https://events.linuxfoundation.org/lf-live-mentorship-series/

› Full list of LF Webinars (upcoming/recorded) available at https://linuxfoundation.org/webinars/

Linux Foundation edX and Training Courses

› Business Considerations for Edge Computing:
https://www.edx.org/course/business-considerations-for-edge-computing

› Getting Started with EdgeX Foundry (LFD213):

https://training.linuxfoundation.org/training/getting-started-with-edgex-foundry-lfd213/

› Full list of courses available at https://training.linuxfoundation.org/

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Upcoming Project Events

› Akraino Technical Meetings - Spring: 1-3 March, 2021 - Virtual
  › Registration now open: https://events.linuxfoundation.org/akraino-technical-meetings-spring/

› Projects can add their events to this list by sending the Wiki page listing the information to info@lfedge.org

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Next Meeting

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Next Meeting

› Next Meeting: Wednesday, February 24 @ 7am PST
  › Topics
    › Home Edge [CII Best Practice Badge](#)
    › Akraino R4 Overview
    › Akraino Blueprints
      › Re-introduction to include BP requirements (e.g. all open source; commercial hardware components, etc?)
  › Future Topics
    › EdgeX Ready

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Thank You

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Backup/Resources

Upcoming Release Calendar

› Reminder to Projects to please review and update as needed
› https://wiki.lfedge.org/display/LE/Upcoming+Release+Calendar

Release dates are subject to change.

For the latest information on each Project's upcoming releases, or access to prior releases, please visit:

- Akraino - https://wiki.akraino.org/display/AK/Releases
- Baetyl - https://github.com/baetyl/baetyl/releases
- EdgeX Foundry - https://wiki.edgexfoundry.org/display/FA/Releases / https://wiki.edgexfoundry.org/display/FA/Roadmap
- EVE - https://github.com/lf-edge/eve/releases > waterfall release model
- Fledge - https://github.com/fledge-iot/fledge/releases
- Home Edge - https://wiki.lfedge.org/display/HOME/Roadmap+and+Release+Notes
- Open Horizon - Coming Soon
- Secure Device Onboard - https://github.com/secure-device-onboard/release/releases
- State of the Edge - https://github.com/lf-edge/glossary/blob/master/edge-glossary.md

TAC - Focus Areas for 2020 (what to emphasize / de-emphasize in 2021?)

Target areas identified for the TAC to direct focus, beyond PLD/Project Review

1. **Architecture (Tech > LF Edge) - Output: TBD (*White paper?*)**
2. APIs Document, Align and Publish
3. SDO/Consortiums expansion
4. **Forcing function - Use Case or Deployment > Demo across all projects**
5. Technical overlap/unification
6. Cross Project Collaboration
7. IT Efficiencies

Out of Scope for the TAC (for now)

1. Vertical Solutions (End User / SIG Program)
   a. At Board/SPC level

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LF Edge TAC - Focus Areas for 2021: Continued Discussion

› One idea raised was for deeper (technical) solution briefs around Use Cases and Deployments
  › Would require commitment (volunteers) from the TAC, Projects, as well as the SPC
› (from prior discussion) White Papers
  › LF Edge level or Project level?
  › General (2020 introduced taxonomy/Projects) or Specific? (e.g. Security, Telemetry)
  › Who would be the audience?
  › Post publishing, vehicle for feedback? Success metrics?
› Other initiatives?
  › Open Edge Services Catalog - creation and cross-project support
  › Common way to document APIs for all the projects

CII Best Practices Badge

› Identifies a set of best practices for OSS projects, focusing on security
› Provides a mechanism for projects to self-certify that they meet these criteria
  › Automation helps & prevents some false answers
› Full presentation here:
  › https://github.com/coreinfrastructure/best-practices-badge/blob/master/doc/cii-bp-badge-intro.pptx
› Website where projects can receive a badge here:
  › https://bestpractices.coreinfrastructure.org
› EdgeX Foundry, Home Edge and Open Horizon badging already in progress!
  › https://bestpractices.coreinfrastructure.org/en/projects/1226
  › https://bestpractices.coreinfrastructure.org/en/projects/4336
  › https://bestpractices.coreinfrastructure.org/en/projects/4300
› LF Edge Wiki tracks badge progress here: https://wiki.lfedge.org/
› Proposal: All LF Edge projects be encouraged to get a CII Best Practices badge

Pushed to Next Meeting

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